

REMARKS

Examiner Bauer is thanked for the indication of allowable subject matter recited in claims 6-7, 14-15, 22-23, 29-30 and 35-36.

Claims 1-3, 5-11, 13-19, 21-26, 28-32 and 34-36 are pending in the action, with claims 1, 9, 17, 24 and 31 being independent.

Claims 1, 3, 9, 11, 17, 19, 24, 26, 31 and 32 are amended, and new claims 37-38 are added. Support for these amendments and new claims can be found, for example, at paragraphs [0036]-[0039] of the present specification. No new matter has been added.

Claims 1-3, 5, 8-11, 13 and 16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over USP No. 6,738,248 to **Jenkins** in view of USP No. 5,994,760 to **Duclos**, and further in view of WO 02/05380 to **Rutfors**.

Claims 17-19, 21, 24-26, 28, 31, 32 and 34 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over **Jenkins** in view of **Duclos**.

These rejections are respectfully traversed. Reconsideration and allowance of the above-referenced application are respectfully requested in light of the following remarks.

Section 103(a) Rejections

Claims 1-3, 5, 8-11, 13 and 16 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jenkins in view of Duclos, and further in view of Rutfors. This rejection is respectfully traversed.

Claim 1, as amended, recites in part an electrostatic discharge protection circuit operable to shunt electrostatic discharge current during a positive electrostatic discharge event away from a radio frequency input to a first supply or to a second supply using a second diode, and during a negative electrostatic discharge event away from the radio frequency input to the first supply or to the second supply using the first diode.

Neither Jenkins, Duclos nor Rutfors teach or suggest at least these features. The Office previously asserted that Jenkins describes an electrostatic discharge protection circuit at col. 3, lines 34-53. See page 2, item 1, lines 10-13 of the Final Official Action dated September 24,

2007. This section of Jenkins describes the arrangement of diodes D1-D4 used in an electrostatic discharge (ESD) protection circuit 108 and the conditions under which the diodes D1-D4 are turned on, but otherwise provides no teaching or suggestion on any positive or negative ESD event, let alone the use of a specific diode by which ESD current is shunt during these events. By contrast, the claimed electrostatic discharge protection circuit employs a particular diode to avoid any direct path with the high voltage supply that can create high supply noise. *See* [0029] of the present specification.

Duclos does not cure the noted deficiencies of Jenkins. While Duclos discloses that ESDs can be positive or negative (*see* col. 1, lines 39-40), Duclos provides no disclosure of using a specific diode (e.g., a specific one of diodes D1-D4 shown in FIG. 3) for shunting ESD current during these ESD events.

Rutfors also does not cure the noted deficiencies of Jenkins and Duclos, as Rutfors does not describe the use of an ESD protection circuit, or diodes for shunting ESD current. *See e.g.*, FIG. 1.

For at least these reasons, it is respectfully submitted that the proposed combination of Jenkins, Duclos and Rutfors does not render claim 1, as amended, obvious.

Claims 2-3, 5, and 8 depend from claim 1, and also are submitted to be allowable for at least the reasons discussed above with respect to claim 1, as amended.

New claims 37-38 depend from claim 1, and also are submitted to be allowable for at least the reasons discussed above with respect to claim 1, as amended.

Claim 9

Claim 9, as amended, recites in part shunting means for shunting electrostatic discharge current during a positive electrostatic discharge event away from a receiving means to a first supply using a second diode means and to a second supply using the second diode means and a separate clamping means, and during a negative electrostatic discharge event away from the receiving means to the first supply using a first diode means and to the second supply using the first diode means and the separate clamping means.

As discussed above, neither Jenkins, Duclos, nor Rutfors teach or suggest at least these features. For at least these reasons, it is respectfully submitted that the proposed combination of Jenkins, Duclos and Rutfors does not render claim 9, as amended, obvious.

Claims 10-11, 13 and 16 depend from claim 9, and also are submitted to be allowable for at least the reasons discussed above with respect to claim 9, as amended.

Section 103(a) Rejections

Claims 17-19, 21, 24-26, 28, 31, 32 and 34 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jenkins in view of Duclos.

Claim 17, as amended, recites in part an electrostatic discharge protection circuit operable to shunt electrostatic discharge current during a positive electrostatic discharge event away from an input/output pad to a first supply using a second diode and to a second supply using the second diode and a separate electrostatic discharge clamp, and during a negative electrostatic discharge event away from the input/output pad to the first supply using a first diode and to the second supply using the first diode and the separate electrostatic discharge clamp.

As discussed above, neither Jenkins nor Duclos teach or suggest at least these features. For at least these reasons, it is respectfully submitted that the proposed combination of Jenkins and Duclos does not render claim 17, as amended, obvious.

Claims 18-19 and 21 depend from claim 9, and also are submitted to be allowable for at least the reasons discussed above with respect to claim 9, as amended.

Claim 24

Claim 24, as amended, recites in part shunting means for shunting electrostatic discharge current during a positive electrostatic discharge event away from an input/output pad to a first supply using a second diode means and to a second supply using the second diode means and a separate clamping means, and during a negative electrostatic discharge event away from the input/output pad to the first supply using a first diode means and to the second supply using the first diode means and the separate clamping means.

As discussed above, neither Jenkins nor Duclos teach or suggest at least these features. For at least these reasons, it is respectfully submitted that the proposed combination of Jenkins and Duclos does not render claim 24, as amended, obvious.

Claims 25-26 and 28 depend from claim 24, and also are submitted to be allowable for at least the reasons discussed above with respect to claim 24, as amended.

Claim 31

Claim 31, as amended, recites in part shunting electrostatic discharge current during a positive electrostatic discharge event away from an input/output pad to a first supply using a second direct discharge path and to a second supply using the second direct discharge path and a third direct discharge path, and during a negative electrostatic discharge event away from the input/output pad to the first supply using a first direct discharge path and to the second supply using the first direct discharge path and the third direct discharge path.

As discussed above, neither Jenkins nor Duclos teach or suggest at least these features. For at least these reasons, it is respectfully submitted that the proposed combination of Jenkins and Duclos does not render claim 31, as amended, obvious.

Claims 32 and 34 depend from claim 31, and also are submitted to be allowable for at least the reasons discussed above with respect to claim 31, as amended.

Conclusion

It is respectfully requested that all pending claims be allowed.

The foregoing comments made with respect to the positions taken by the Office are not to be construed as acquiescence with other positions of the Office that have not been explicitly contested. In addition, arguments set forth in this Response for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

For all of the reasons set forth above, it is respectfully submitted that the claims are in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call the undersigned at the telephone number shown below.

Please charge any shortage in fees due in connection with the filing of this paper to Deposit Account 06-1050, referencing Attorney Docket No. MP0358/13361-0058001, and please credit any excess fees to such deposit account.

Respectfully submitted,

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